Introducing
Oracle BI / XML Publisher

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Session Objectives

- Learn how to use XML Publisher to create reports
- Understand how templates are used to declaratively build reports
- Generate multiple output formats including: HTTP (XML), RTF, and PDF

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Presentation Path

I. Introduction to XML Publisher
   1. Standards Underneath XML Publisher
   2. XML Publisher Process Flow
   3. Report Templates & Data Sources
   4. Installation and Configuration

II. Report Editor
   1. Report Templates
   2. Query Builder
   3. Creating Reports
   4. Dataset types

III. Report Forms
   1. RTF Templates
   2. Report Components
   3. Formatting Options
   4. Number and Date formatting
   5. Using XSL and XSL:FO for PDF

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Introduction to BI/XML Publisher

- Oracle BI / XML Publisher:
  - Powerful report generation tool
  - Creates standardized reports containing Oracle (and other) data quickly and easily
  - Originally intended to support Oracle' various ERP tools (Oracle E-Business Suite, JD Edwards, PeopleSoft, Seibel, etc...)
  - BI / XML Publisher is now available as a separate product or as part of Oracle BI Suite Enterprise Edition R3 10g (based upon Siebel Analytics 7.8)

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Standards

- Standards Underneath XML Publisher include:
  - XML
  - SQL
  - Java EE
  - RTF
  - PDF
  - WebDav
  - Microsoft Word & Microsoft Excel

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Process Flow

- XML Publisher Process Flow
  1. Create / identify data source(s)
  2. Create / identify template(s)
  3. Create and distribute reports and/or report data using BI / XML Publisher (HTML, Microsoft Excel, Microsoft Word, PDF, XML/XSL, EDI, others…)

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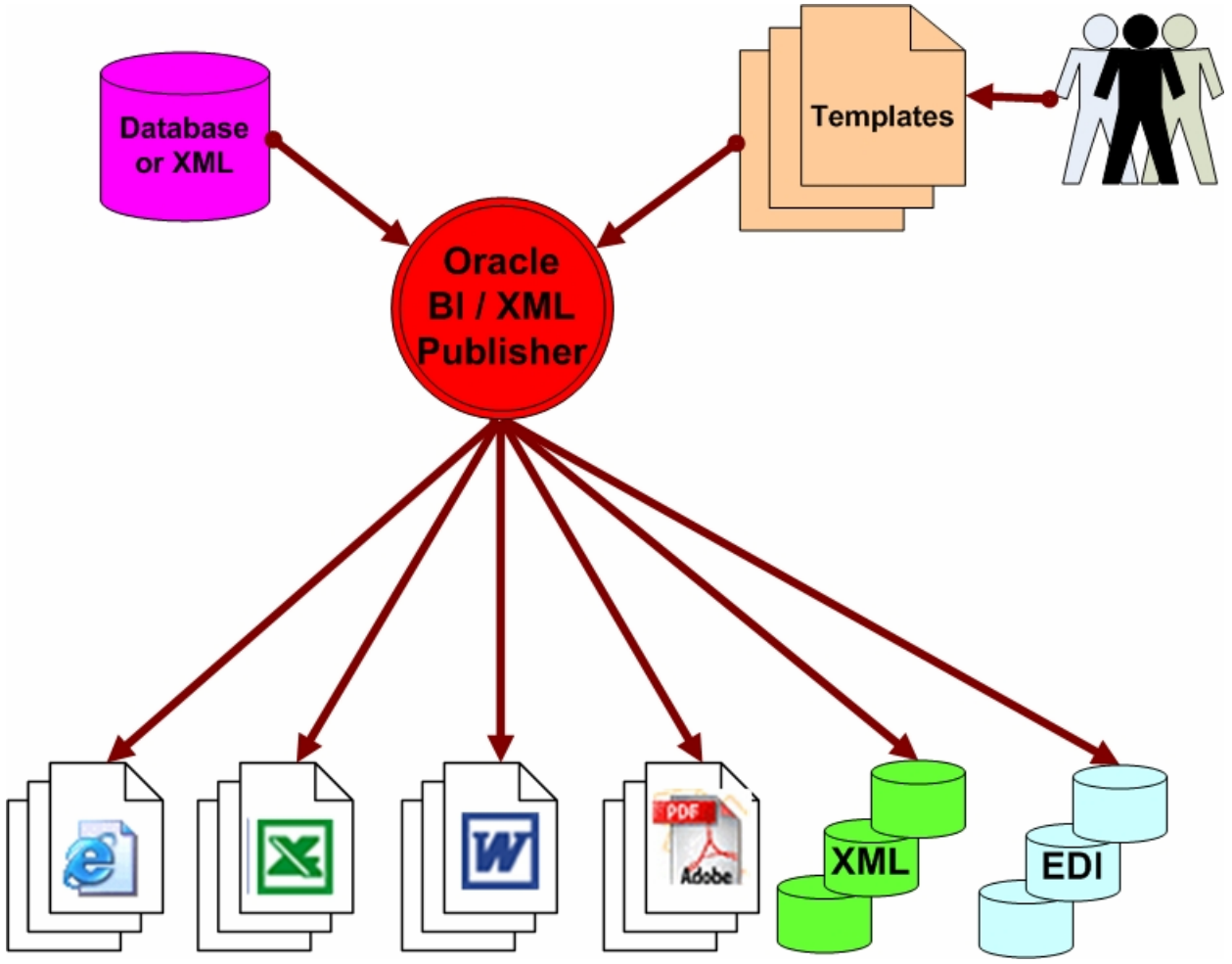
BI / XML Publisher Process



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Report Templates

- Report Templates are based upon W3C standard XSL-FO
- Many XSL editors currently exist that can generate report formats for XSL-FO
- The BI/XML Publisher Client provides template creation using Microsoft Word, Microsoft Excel, and Adobe Acrobat (tools probably familiar to report users)

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Data Sources

- BI / XML Publisher can work with:
  - SQL Data
    - Oracle, Microsoft SQL Server & IBM DB2 today
    - More tomorrow
  - XML Data

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Installation & Configuration

- XML Publisher Installation and Configuration
  - XML Server is installed using the Oracle installer
  - XML Client is windows-based and is installed using a windows setup program

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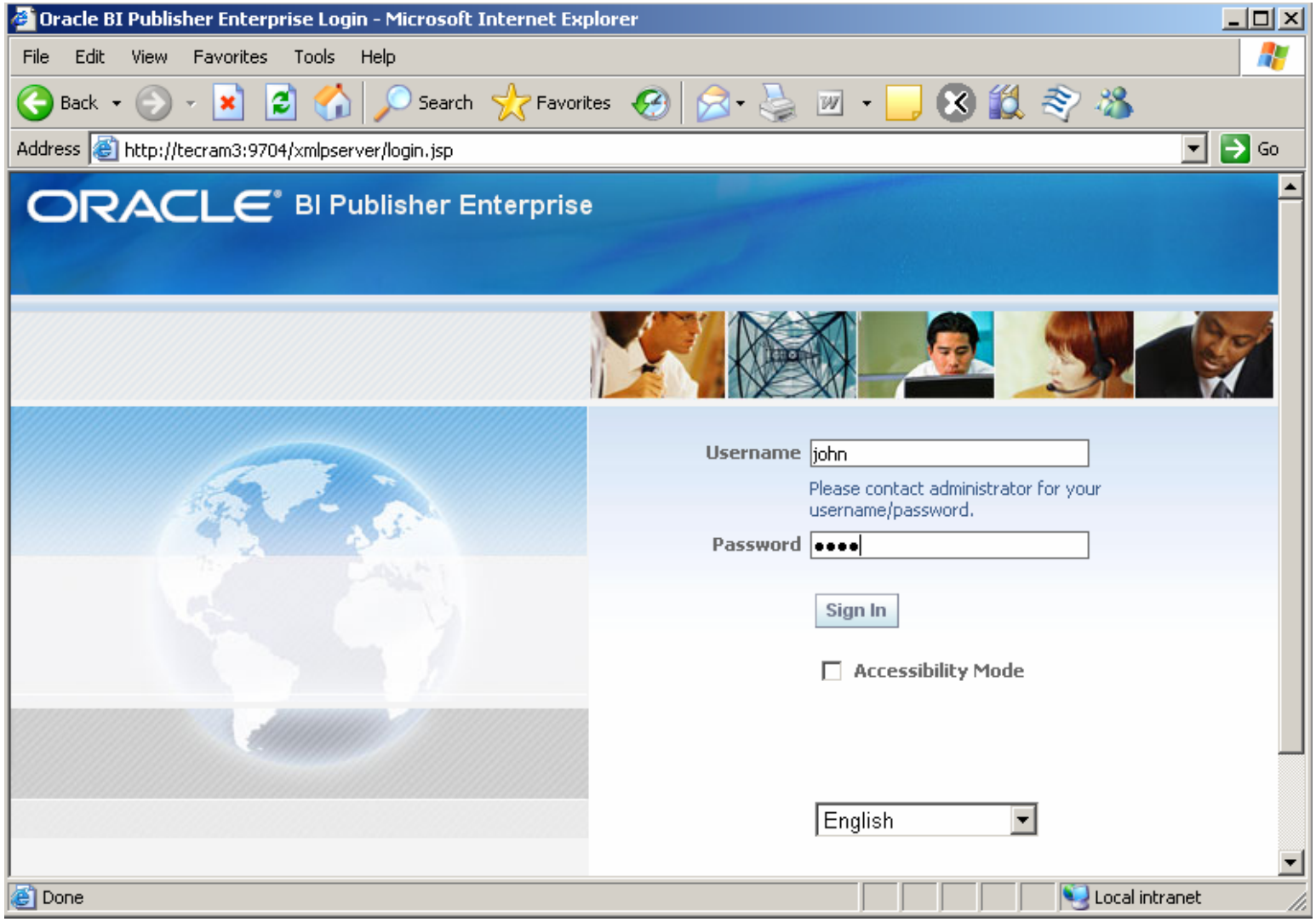
BI/XML Publisher is Web-Based



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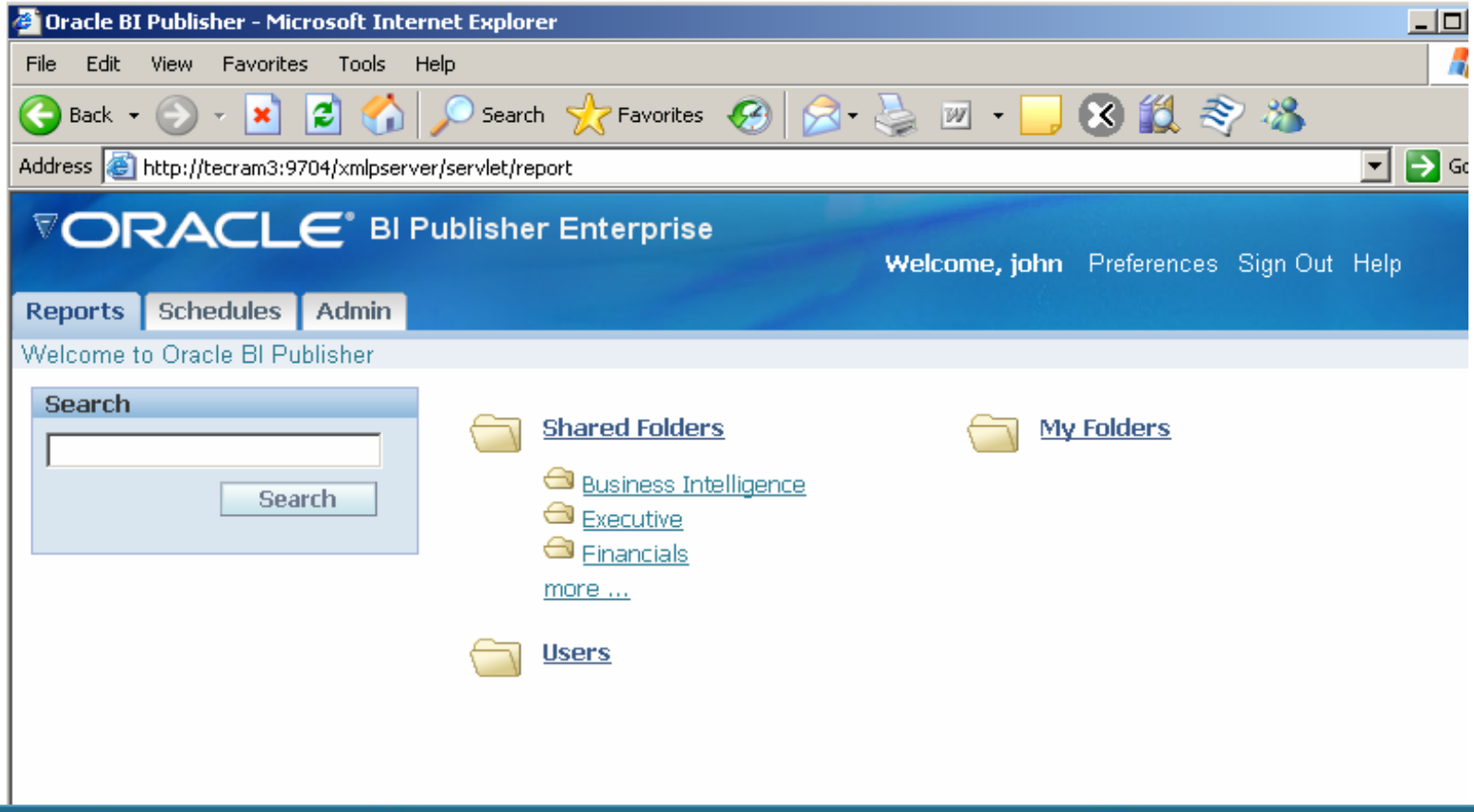
Report Folders

- Each user has access to folders containing reports



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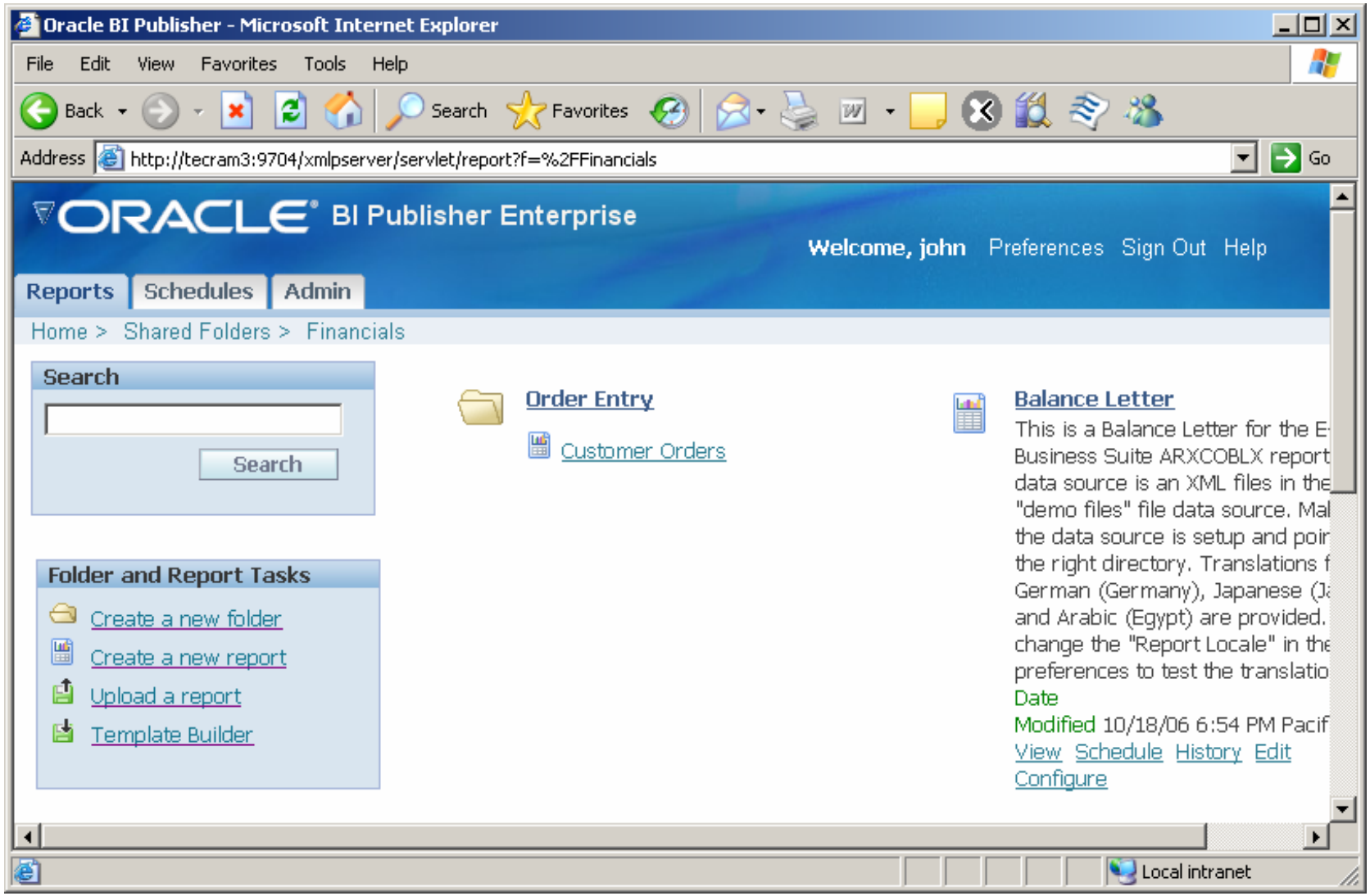
Report Folder Contents



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Report Editor

- The BI / XML Publisher Report Editor allows manipulation of report data and specification of new and/or different templates
  - View
  - Schedule
  - History
  - Edit
  - Configure

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Report Editor Overview

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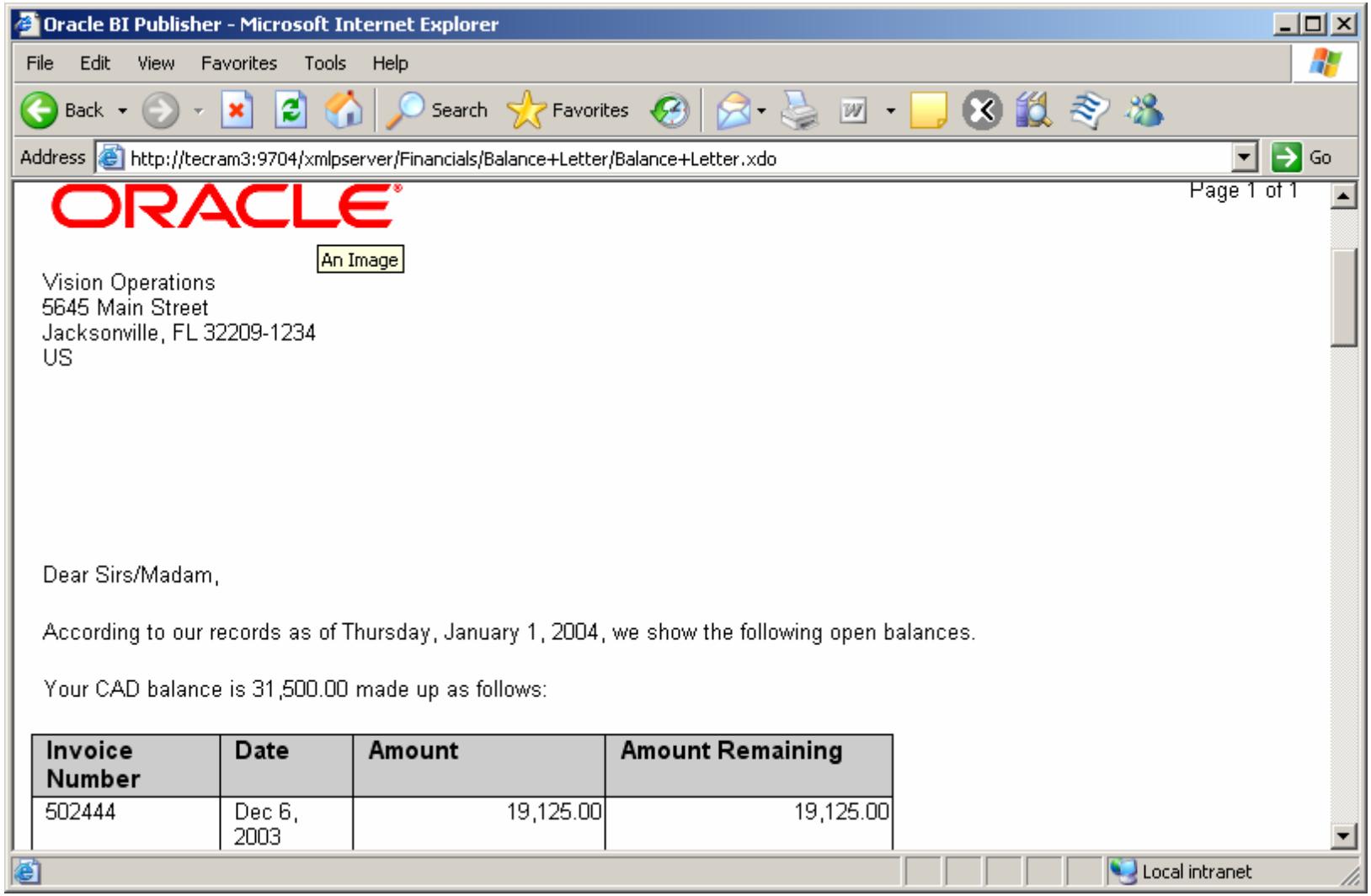
Report View



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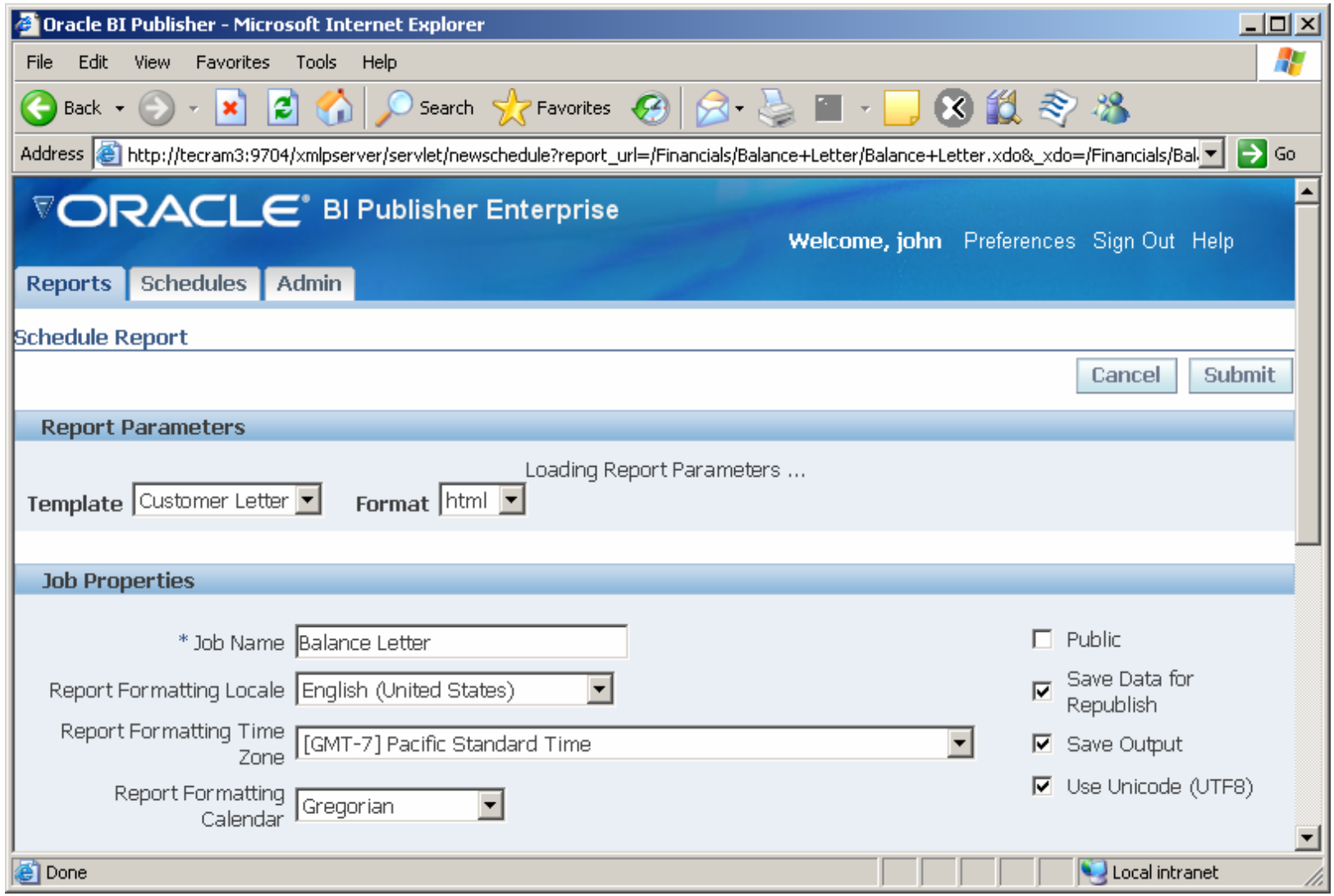
Report Schedule



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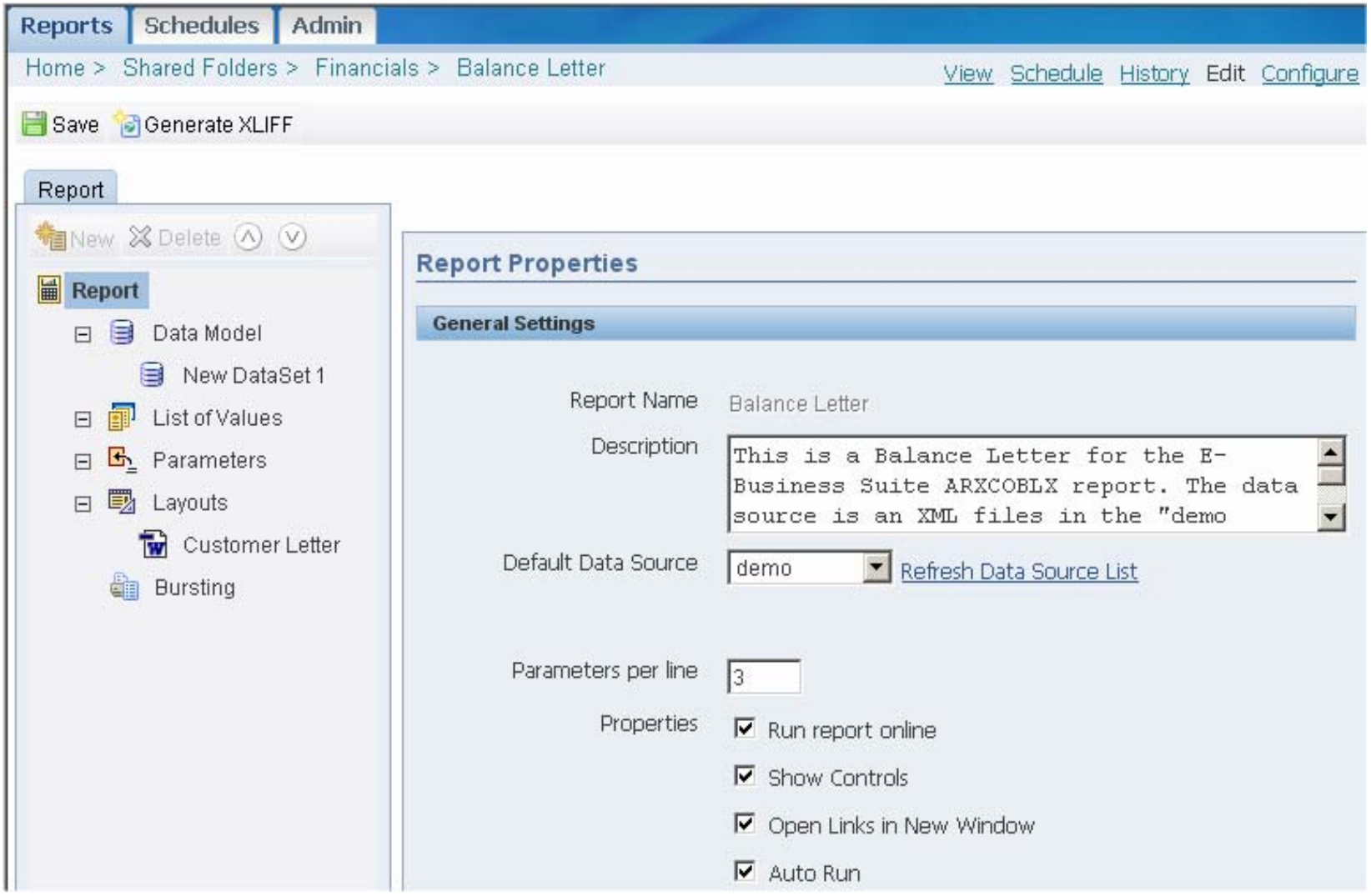
Report Edit



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Data Set Types

- Data Models for BI/XML Publisher may be created using:
  - SQL queries
  - HTTP (XML)
  - Web services
  - Data Templates
  - Oracle BI Answers requests
  - Files

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Supported Data Sources

- Data sources supported:
  - Oracle
  - Non-Oracle

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Query-Based Reports

- Within BI/XML Publisher's Report Editor queries may be
  - Manually Coded
  - Created using Query Builder

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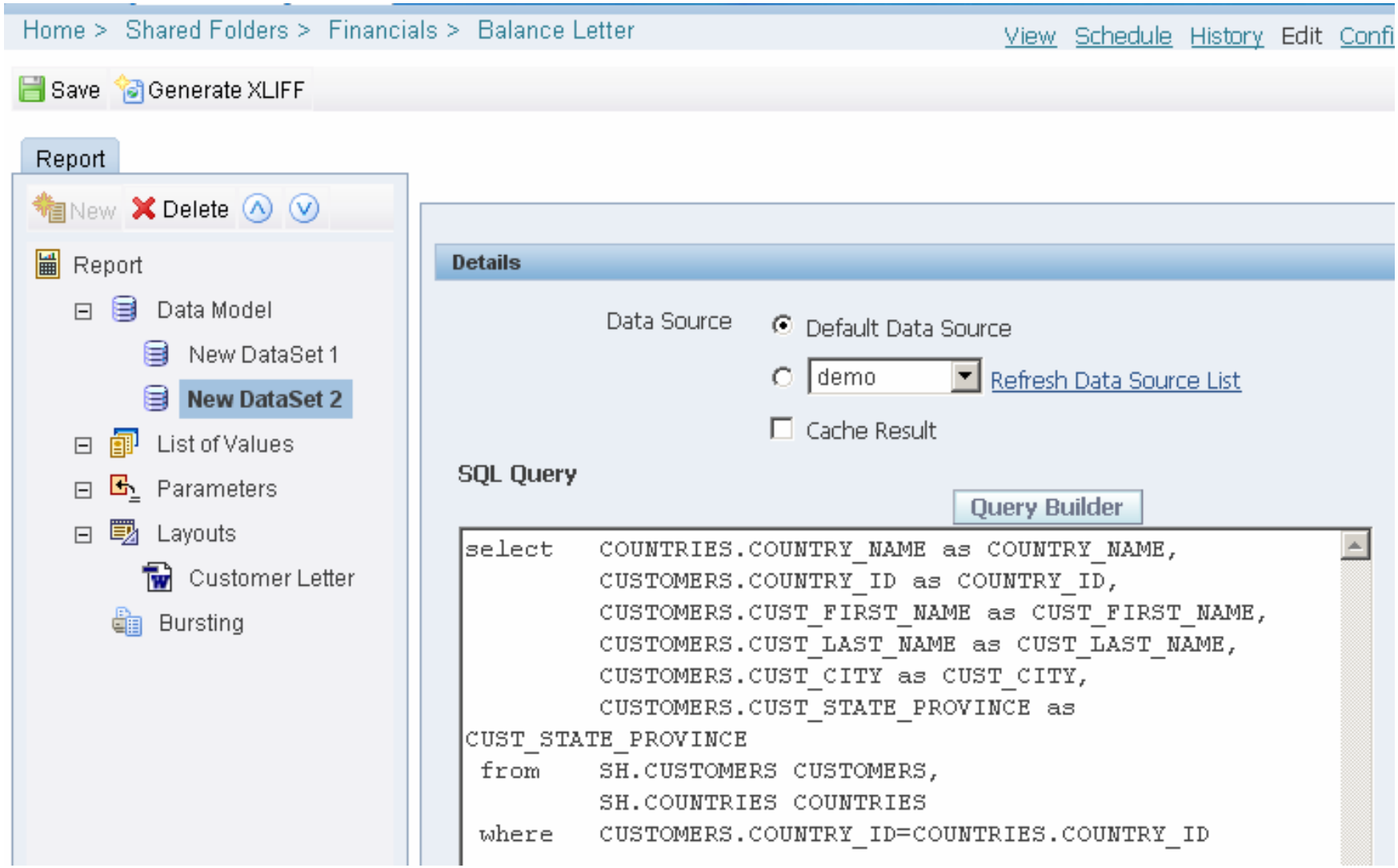
Report Queries



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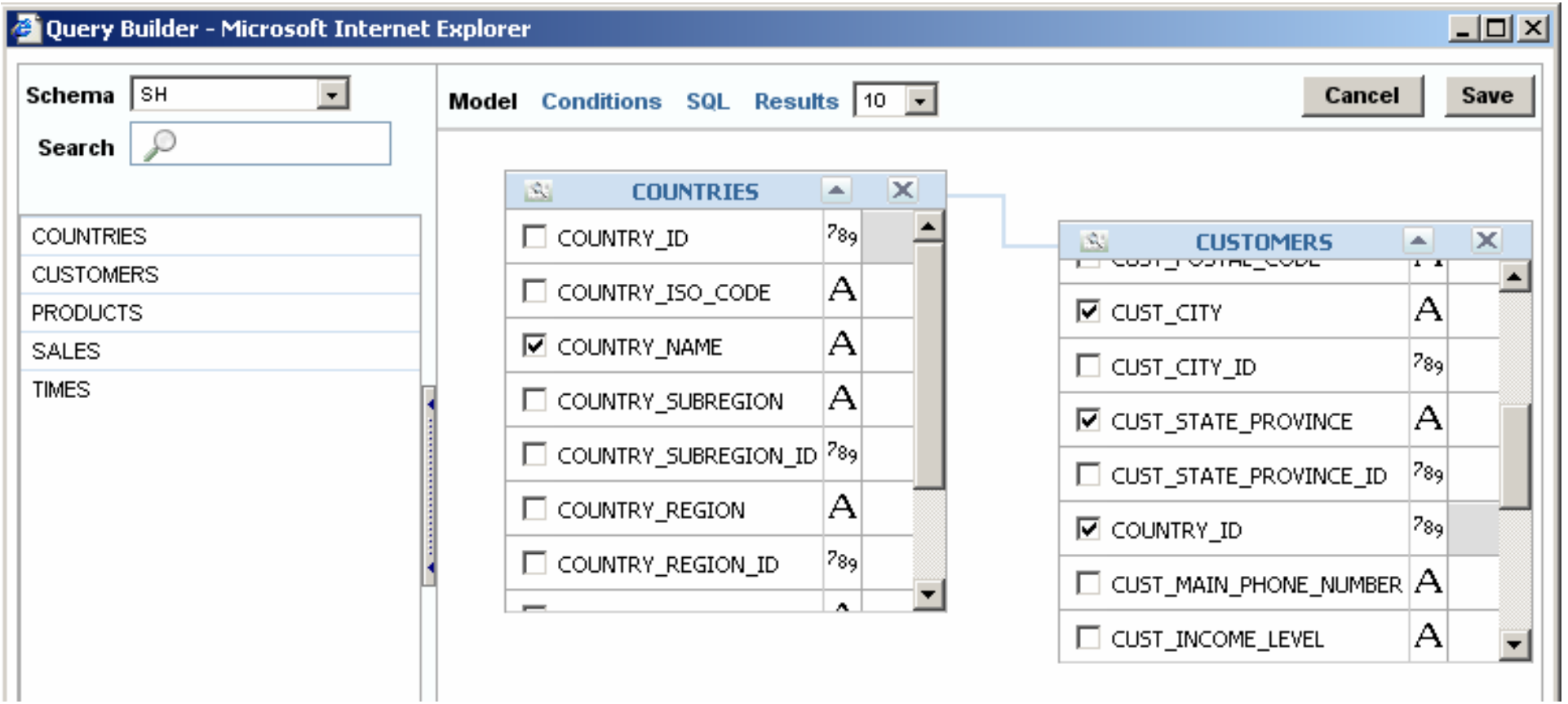
Query Builder

- The Query Builder helps build SQL easily



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Report Templates

- BI/XML Publisher allows report layouts to be specified using Report Templates of various forms:
  - Rich Text Format (RTF)
  - Portable Document Format (PDF)
  - Microsoft Excel (XLS)
  - XSL Stylesheet
  - eText

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BI Publisher Client Software

- Oracle provides BI/XML Publisher Client software that runs within Microsoft Word

  - Part of BI Enterprise installation set
  - May be downloaded separately as a patch from Oracle MetaLink

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Creating RTF Templates

- Use Microsoft Word and/or the Oracle BI/XML Publisher client software within Microsoft Word to build .rtf templates
- Templates might also be created using other tools like:
  - Adobe Acrobat
  - Microsoft Excel
  - Altova XML Spy
  - Oracle JDeveloper
  - More…

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Report Components

- Report Components:
  - Groups
  - Fields
  - Headers
  - Footers

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Formatting Options

- BI/XML Publisher output may take many forms including:
  - PDF
  - RTF
  - EDI
  - EFT
  - XML
  - HTML
  - More…

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Expanded Template Features

- BI Publisher has its own extended set of SQL and XSL functions used in RTF templates
- Extended functions are coded using syntax resembling XML Processing Instructions
- for use in RTF templates. The syntax for these extended functions is
  - <?xdofx:expression?>
    - Extended SQL functions
  - <?xdoxslt:expression?>
    - Extended XSL functions
- Extended SQL and XSL may not be mixed
- Example:
  - <?xdofx:rpad(FIRST_NAME||LAST_NAME),30,'x')?>

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Number and Date formatting

- BIXML Publisher supports three types of date formatting:
  - Explicit date mask using Microsoft Word native date format or Oracle's date formatting; presumes date in XML date form
    - YYYY-MM-DDThh:mm:ss+HH:MM
  - Abstract date mask using Oracle's abstract date format; date in form
    - <?format-date:fieldname;'MASK'?>
    - Masks include: LONG, LONG_TIME, LONG_TIME_TZ,MEDIUM, MEDIUM_TIME, MEDIUM_TIME_TZ, SHORT, SHORT_TIME, and SHORT_TIME_TZ
- Do not mix date formats (product gets confused)

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Using XSL and XSL:FO

- XSL and XSL:FO are W3C standard mechanisms for formatting
- XSLT is designed for transformations to a variety of output formats
- XSL-FO is designed specifically for creating highly-formatted print output such as RTF (rich text file) or PDF (portable document format)
- XSLT is an excellent choice for web-based output, particularly when it is produced in an on-demand or ad-hoc fashion
- When predictability and reliability are necessary, the more-controlled output offered by XSL-FO is called for

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Creating PDF Templates

- PDF templates may be created using any PDF document such as:
  - Layout designed using applications that generate PDF
  - Scanned document
  - Downloaded existing PDF document
- PDF templates are not recommended for documents that will require frequent layout changes
  (more difficult than with RTF templates)

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Wrapping it all Up

- Oracle's BI / XML Publisher brings the power of the database to standardized reporting
- BI / XML Publisher allows report designers to reuse queries to build reports in many forms

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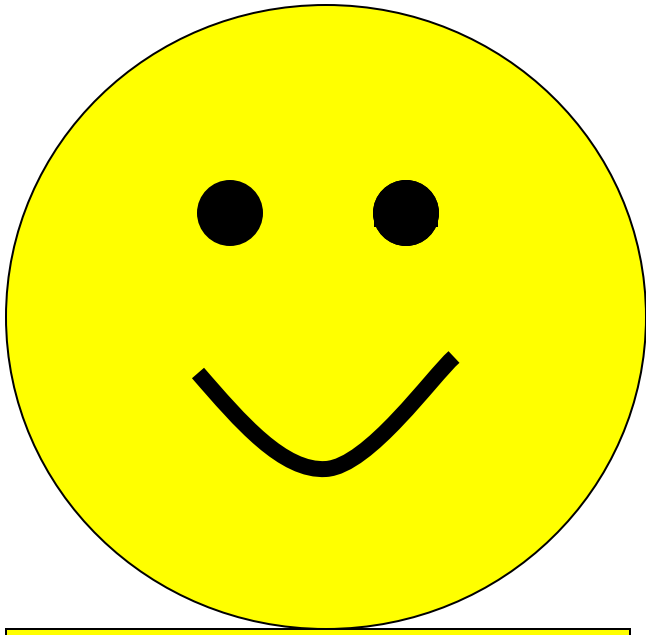

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